

UPGRADED FLEXIBLE OPEN RING OPTICAL NETWORK AND METHOD

5    ABSTRACT

In one embodiment, a method is provided for an in-service upgrade of a twin ring optical network comprising a plurality of passive add/drop nodes coupled using a first optical fiber ring and a second optical fiber ring. The method includes interrupting optical traffic travelling in a first direction on the first optical fiber ring at 10 a first interruption location between a first passive add/drop node and a second passive add/drop node. The method further includes interrupting optical traffic travelling in a second disparate direction on the second optical fiber ring at a second interruption location between the first add/drop node and the second add/drop node. The network provides protection switching such that interrupting traffic flow at the 15 first or second interruption locations does not prevent traffic on the network from reaching any add/drop node. The method also includes inserting an optical gateway node into the network.